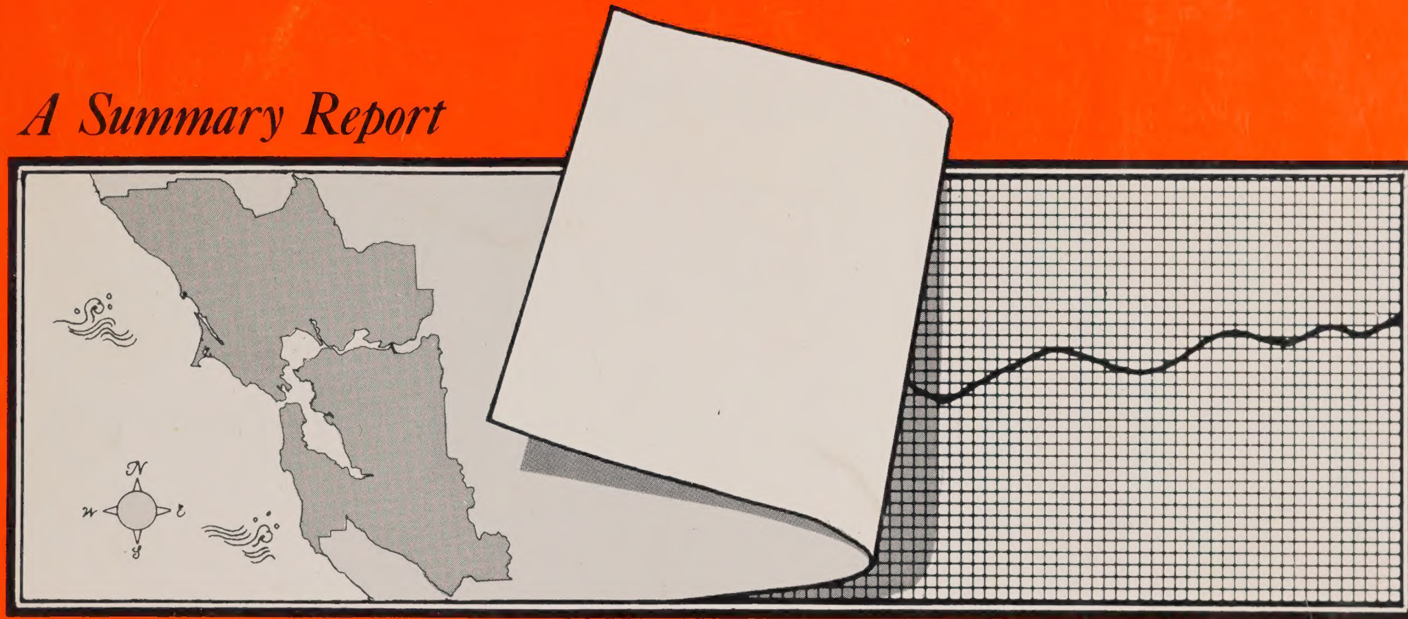
A Summary Report



San Francisco Bay Area ECONOMIC PROFILE

ABAG
ASSOCIATION OF BAY AREA GOVERNMENTS

BAY AREA COUNCIL

BAY AREA ECONOMIC PROFILE

This summary report presents only major findings about the Bay Area's economy. The full Bay Area Economic Profile provides more detail and reference information used in deriving these findings. In addition, subregional information about economic changes taking place in 15 employment centers in the region is presented.

The Bay Area Economic Profile was prepared using funds from two sources:

- A grant received by ABAG through the 302 (a) Metropolitan Economic Development Planning Assistance Demonstration Program of the Economic Development Administration, U.S. Department of Commerce.
- The Bay Area Council.

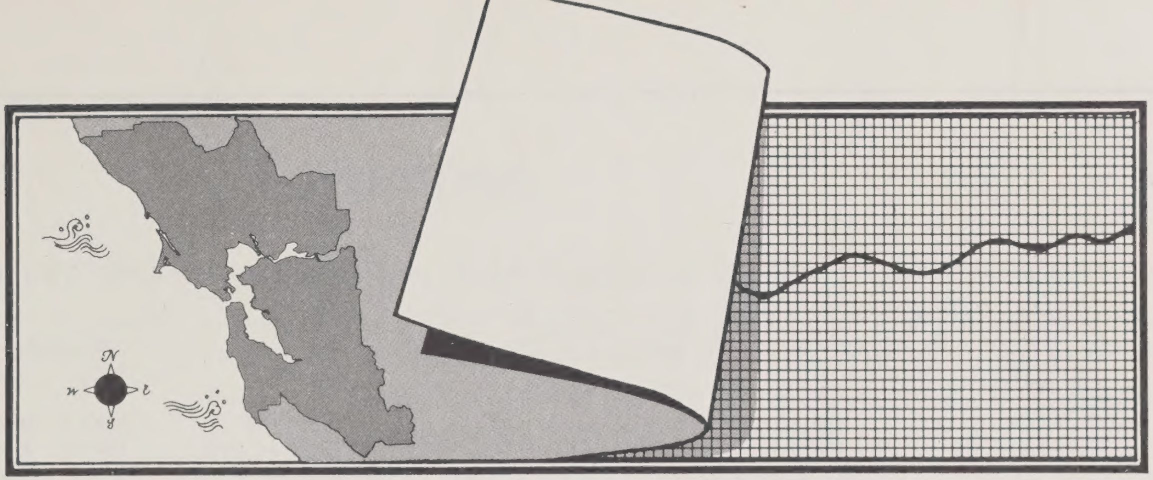
Project Sponsorship

ABAG is a voluntary association of the local governments in the nine-county San Francisco Bay Area. It was established in 1961 to address regional problems through the cooperative action of member cities and counties; at present 88 of the 93 cities and eight of the nine counties in the region are members. Twenty-five special districts, regional agencies, and other government agencies are non-voting, cooperating members.

ABAG is the areawide comprehensive planning agency for the Bay Area, and is the designated A-95 agency responsible for reviewing Federal grant applications from within the region. ABAG's approved Regional Plan provides a policy guide for planning of the region's economic development, environmental quality, health, housing, recreation, safety and transportation.

The Bay Area Council is a private, nonprofit organization involved in economic and environmental policies concerning the nine-county San Francisco Bay Area. Established in 1945, the Council is supported by nearly 300 major corporations headquartered or located in the Bay Area. Its program focuses on regional issues in the categories of economic vitality, environmental quality, regional planning and land use, transportation and governmental organization. The Council is an active participant in the regional public policy arena on behalf of the Bay Area business community; its activities include research, consensus-building, advocacy and communications.

October 1979



[Bay area council]
San Fran. metro. area -- Economic conds
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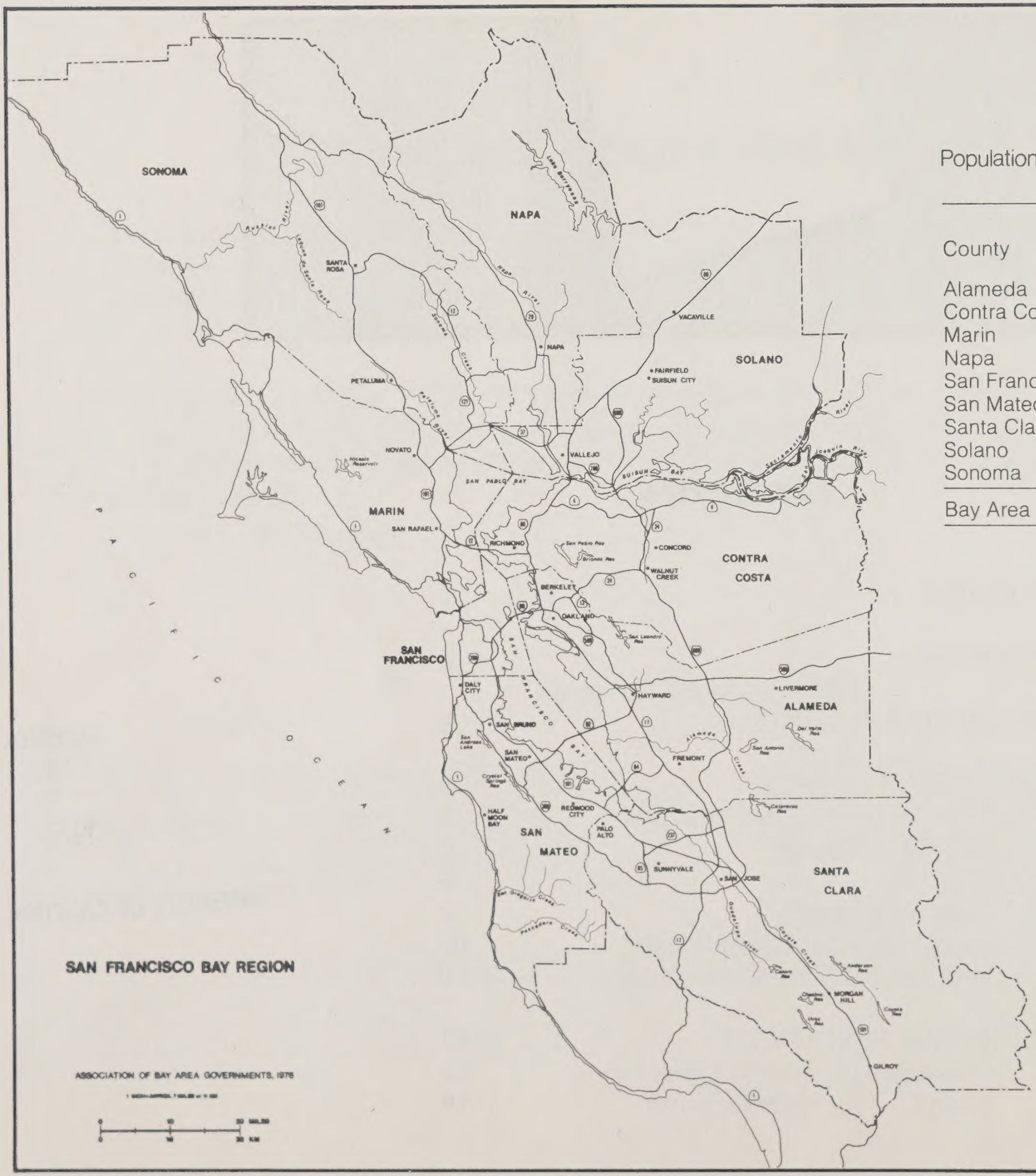


Population: 1972 and 1978 (thousands)

County	Population 1972	Population 1978	Change 1972-1978
Alameda	1090.4	1101.9	11.5
Contra Costa	568.5	613.4	44.9
Marin	211.6	222.9	11.3
Napa	82.4	94.0	11.6
San Francisco	701.3	658.7	-42.6
San Mateo	561.2	586.2	25.0
Santa Clara	1104.5	1227.5	123.0
Solano	180.2	208.3	28.1
Sonoma	219.3	271.6	52.3
Bay Area	4719.4	4984.5	265.1

PURPOSE

The Bay Area Economic Profile, a report jointly developed by the Association of Bay Area Governments and the Bay Area Council, provides a description of the economic status of the Bay Area. The Bay Area consists of the nine counties that surround San Francisco Bay: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma.

The Profile is also intended to provide a first step toward three longer-range objectives:

- Creating a better understanding of the relationships between the economy of the Bay Area and public policy decisions.
- Building consensus between the public and private sectors on regional economic problems and opportunities.
- Formulating economic goals, objectives, and policies for the future of the Bay Area.

By leading to a better understanding of the structure and functioning of the Bay Area economy, the Economic Profile will aid in achieving consensus on regional economic goals, and public policy actions that will complement those goals.

This summary document presents highlights of the Bay Area Economic Profile, focusing on what have emerged as key findings of the full report.

FINDINGS

GROWTH OF THE REGION

1. From 1960 to 1976, population grew faster in the Bay Area than in any other consolidated metropolitan area outside the "Sunbelt."
2. Today, with approximately five million people, the Bay Area is the fifth largest metropolitan area in the nation.
3. Most population growth over the past two decades has occurred in the suburban areas of the region.
4. The number of households in the region has grown at a faster rate than population. Over the past two decades, the Bay Area's annual household growth rate has been 2.9 percent, significantly higher than the 1.8 percent annual growth rate of population.
5. The Bay Area employment growth rate between 1960 and 1978 was substantially higher than the national average. Bay Area employment grew by about one million jobs, or at an annual growth rate of 3.3 percent compared with 2.1 percent for the nation.

THE ECONOMIC BASE

6. The Bay Area has a growing and highly diverse economic base, with particular strength in economic sectors that are emerging nationally.
7. Generally, the Bay Area economy has shifted from goods-producing to service-oriented activities to a greater degree than has occurred nationwide.
8. Of the important sectors of the region's economic base, the most rapidly growing are:
   High-Technology Manufacturing, including aerospace, computers, electronics and instruments.
   - The Bay Area is a worldwide center for high-technology manufacturing and new product development. The regional employment in this sector was about 160,000 in 1978.
   - One-fifth of all new jobs created in this sector nationwide between 1972 and 1977 were in the Bay Area — some 50,000 jobs.
   - These industries rank high in employment, value added in production, and the proportion of output reaching export markets.
   - Bay Area employment in this sector grew 8 percent annually between 1972 and 1977, compared with a 1.7 percent annual rate nationally.
   - In 1975, 79 percent of high-technology manufacturing employment was concentrated in the Santa Clara Valley; this concentration is likely to continue.
   - A recent survey by the Santa Clara County Manufacturing Group indicates Bay Area employment in this sector could increase by as many as 25,000 jobs over the next two years, and another 30,000 between 1982 and 1985.

Office Sector, characterized by concentrations of professional, technical, clerical and sales workers in office buildings.

- This sector accounted for almost 60 percent of the region's total employment growth between 1970 and 1978 — almost 300,000 new jobs.
- By 1978, slightly over half of all Bay Area jobs were in the office sector.
- Of the more than 1.1 million Bay Area office workers in 1978, about a third were employed in basic activities such as corporate headquarters, auxiliary operations, and western regional offices, all serving areas larger than the Bay Area.
- Downtown San Francisco's ability to accommodate increased concentrations of office workers is currently being questioned, and it is unclear where future growth will take place.
- The Bay Area has become an important center for corporate headquarters — 43 of *Fortune Magazine's* list of major corporations (1000 industrial and 300 non-industrial) are headquartered here. Most of this headquarters activity is concentrated in San Francisco and Santa Clara Counties.

Tourism, including activities that serve conventioneers, business travelers and vacationers.

- Indications are that tourism in the region has grown rapidly, and has influenced growth in hotels and motels, restaurants, entertainment and recreation, retail trade, and other activities.
- While data on tourism-related jobs is generally not available, one of the best indicators of activity is the number of visitors to San Francisco, which increased from 1.56 million in 1970 to 3.21 million in 1978.
- New developments aimed at tourism indicate it will be an increasingly important economic sector. However, energy shortages could slow the growth of tourism in the Bay Area.

9. Other important sectors of the region's economic base are:

Food Processing, encompassing a wide range of manufacturing activities involved with the processing of food and beverages.

- Historically one of the Bay Area's most important manufacturing activities, the food processing industry, sold almost $5 billion worth of products in 1976, $1.6 billion of which was value-added.
- This sector is diverse, encompassing a variety of products and locations throughout the Bay Area.
- Regional employment has remained fairly stable at about 49,000 through the 1970s, but represents a somewhat declining share of total employment.
- Food processing is the focal point of a broad range of related supply, production, distribution and consumer activities.

Long-Distance Transportation, including rail, truck, air and water modes.

- Besides being important as an employment sector, long-distance transportation facilities provide services essential to nearly all other economic complexes.
- Regional employment has been fairly constant in recent years, at about 70,000.
- International waterborne trade tonnage expanded by more than 75 percent between 1972 and 1977.
- The Orient now accounts for 74 percent of our international trade; the potential for further significant increases in trade with the Orient points to the growing importance of the water-borne modes.

Government, federal and state, excluding military personnel.

- San Francisco is the most important western center for Federal activities.
- Regional employment was relatively unchanged between 1972 and 1978, at about 165,000 (90,000 federal, 75,000 state).
- A significant decrease over the 1972-1978 period in federal defense-related employment, from 45,000 to 35,000, has been offset by employment increases in other federal activities, from 52,500 to 56,500.
- Within state government over this same period, higher education increased in employment from 39,300 to 46,300 and other state functions increased from 26,200 to 29,000.

ECONOMIC RESOURCES

10. The Bay Area labor force is growing faster than its population, due to the "baby boom" population of the 1950s entering the high work-participation years and the rapidly increasing participation of women in the labor force.

11. White-collar occupations are growing in importance, with 62 percent of Bay Area workers classified as white-collar in 1978, compared with 53 percent in 1960.

12. The productivity of Bay Area manufacturing is high, relative to California and the U.S.

13. Structural unemployment remains a major problem, while some jobs go unfilled. Both high-technology and the office sector are requiring increasing numbers of skilled workers.

14. In broad terms, the supply of industrial land appears adequate. However, some industries may still have difficulty finding appropriate sites in the Bay Area, particularly those requiring locations with special requirements or finding difficulty meeting air and water quality regulations.

15. Proposition 13 and the Gann initiative have increased uncertainty about local governments' ability to provide public services needed to support development.

16. There appears to be an increasing job-housing imbalance, as housing is built at lower densities and located farther from work-sites.

GROWTH OF THE REGION

From 1960 to 1976, population grew faster in the Bay Area than in any consolidated metropolitan area outside the "Sunbelt." This growth has slowed somewhat from a period of especially rapid expansion in the late 1960s, but the growth rate still leads most consolidated areas (which consist of two or more adjacent and closely related metropolitan areas). Between 1960 and 1976, the region's yearly population growth rate averaged 1.8 percent, exceeded only by three other areas in the nation — Los Angeles-Long Beach-Anaheim (1.9 percent), Miami-Fort Lauderdale (2.5 percent), and Houston-Galveston (3.2 percent). In the more recent years between 1970 and 1976, the Bay Area was the third fastest growing consolidated area in the nation, with an annual growth rate of 0.9 percent. The only areas growing faster were Houston-Galveston (2.9 percent) and Miami-Fort Lauderdale (3.5 percent).

Today, with approximately five million people, the Bay Area is the fifth largest metropolitan area in the nation. A major factor in the region's population increase has been a high level of in-migration, which has been closely correlated with employment growth.

In the 1960s, when the region's employment growth was most rapid, in-migration rates were also at an all-time high. Both in-migration and job expansion slowed during the recession years in the early 1970s, but more recently, job growth has again begun accelerating, and net in-migration has increased correspondingly.

Population Growth By Standard Consolidated Statistical Areas: 1960-1976

Standard Consolidated Statistical Area	1976 Rank	Population (millions) 1960	1976	Growth 1960-1976	Annual Percentage Growth Rate
New York-Newark-Jersey City	1	15.12	17.10	1.98	.8
Los Angeles-Long Beach-Anaheim	2	7.75	10.47	2.72	1.9
Chicago-Gary	3	6.79	7.65	.86	.7
Philadelphia-Wilmington-Trenton	4	5.02	5.66	.64	.8
BAY AREA[1]	5	3.68	4.90	1.22	1.8
Detroit-Ann Arbor	6	4.12	4.64	.52	.7
Boston-Lawrence Lowell	7	3.46	3.91	.45	.8
Cleveland-Akron-Lorain	8	2.73	2.89	.16	.4
Houston-Galveston	9	1.57	2.58	1.01	3.2
Miami-Ft. Lauderdale	10	1.57	2.32	.75	2.5
Seattle-Tacoma	11	1.43	1.84	.41	1.6
Cincinnati-Hamilton	12	1.47	1.61	.14	.6
Milwaukee-Racine	13	1.42	1.58	.16	.7

[1] The Bay Area includes the San Francisco-Oakland-San Jose Standard Consolidated Statistical Area plus the County of Sonoma.

Sources: U.S. Department of Commerce, Bureau of the Census, *City and County Data Book, 1977*, (Washington: 1978)

–, *Estimates of the Population of Counties and Metropolitan Areas: July 1, 1975 and 1976*, Series D-25, No. 739 (Washington: November 1978)

Bay Area Employment: 1972 and 1978

(thousands of wage and salary employees)

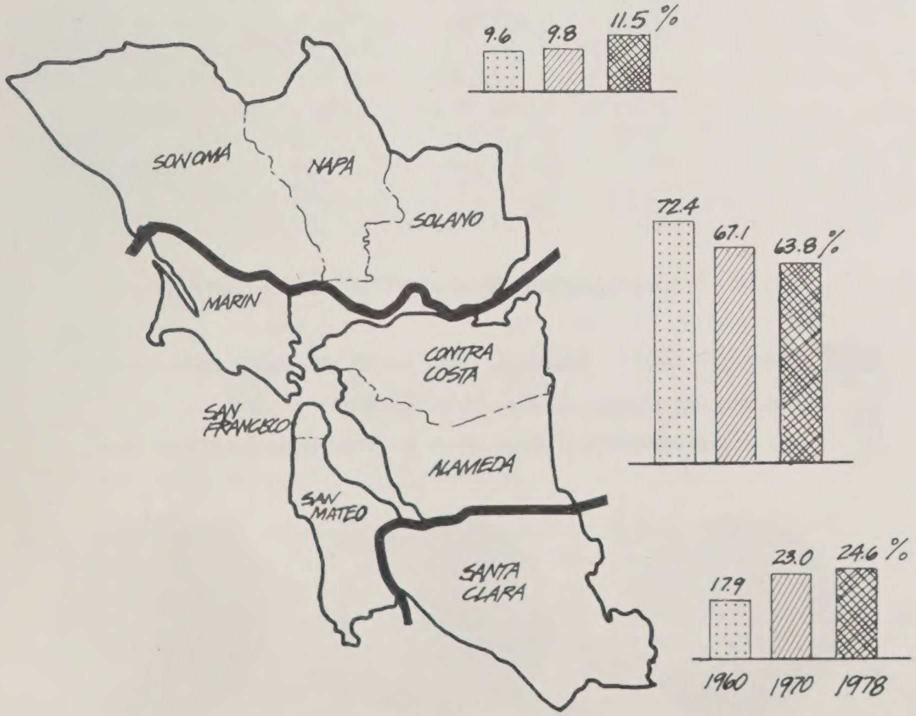
Industry Division	Employment 1972	1978	Change 1972-1978	Percent Share of Regional Growth
A. Agriculture, Forestry, Fishing	22.5	24.9	2.4	0.5
B. Mining	2.0	2.7	0.7	0.1
C. Construction	86.7	100.9	14.2	3.0
D. Manufacturing	325.6	419.1	93.5	20.0
E. Transportation, Communication, Utilities	149.5	152.9	3.4	0.7
F. Wholesale Trade	102.4	129.6	27.2	5.8
G. Retail Trade	273.6	366.7	93.1	19.9
H. Finance, Insurance, and Real Estate	122.4	163.4	41.0	8.0
I. Services	341.1	480.8	139.7	29.9
J. Government	381.8	434.7	52.9	11.3
All Industries	1807.6	2275.7	468.1	100.0

Source: California Employment Development Department, *Wage and Salary Employment by Industry*, (Sacramento, 1979).

Most population growth has occurred in the suburban areas of the region. In 1960, 73 percent of the region's population lived in the five central Bay Area counties: Alameda, Contra Costa, Marin, San Francisco and San Mateo. By 1978, this figure was down to 64 percent, and a major share of the population had shifted to the south Bay (Santa Clara County), with a somewhat lesser shift to the northern counties (Napa, Solano, Sonoma).

The south Bay was the region's fastest growing area in the sixties, with an annual growth rate of 4.9 percent, compared with 1.5 percent for the central counties and 2.6 percent for the northern three counties. Between 1970 and 1978, overall regional growth slowed, paralleling national trends. The south Bay grew at a yearly rate of 1.8 percent, while in the central counties growth declined sharply to 0.3 percent. During this period, the northern counties constituted the fastest growing subregion, with a 2.9 percent annual growth rate.

Geographic Distribution of Bay Area Population: 1960, 1970 and 1978



Sources: U.S. Department of Commerce, Bureau of the Census, *Census of Population: 1960,* Volume 1, Part 6, (Washington, 1963).

–, *1970 Census of Population,* Report PC(1)-C6, (Washington, 1972).

California Department of Finance, Population Research Unit, *County Population Estimates for July 1,* (Sacramento, 1978).

The number of households in the region has grown at a faster rate than population. Over the last two decades, the Bay Area's annual household growth rate has been 2.9 percent, compared with a 1.8 percent yearly population growth over approximately the same time period. Though population growth in the region has slowed significantly since 1970, the rate of household formation continues to accelerate. These diverging trends reflect the decreasing average size of households in the region — also a nationwide development. Average Bay Area household size in 1960 was 3.11 persons, compared with an estimated 2.53 persons in 1978.

The continuing rapid increase in the number of Bay Area households is of considerable economic significance. High rates of household formation result in steadily increasing demand for housing, public services, and consumer goods and services, despite slowed population growth.

Employment growth between 1960 and 1978 was significantly higher than the national average. During that period, Bay Area wage and salary employment grew by one million jobs, to a total of nearly two and a half million. This increase translates to an annual growth rate of 3.3 percent, compared with 2.1 percent for the nation as a whole, and is an important indicator of economic expansion.

Overall Employment Growth, 1960-1978: Bay Area, California and United States

(millions of wage and salary employees)

	1960	1978	Growth 1960-1978	Annual Percentage Growth Rate
Bay Area	1.3	2.3	1.0	3.3
California	5.2	9.5	4.3	3.4
United States	61.3	89.9	28.6	2.1

Sources: California Employment Development Department, *Wage and Salary Employment by Industry.*

U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings.*

THE ECONOMIC BASE

Describing the region in terms of its economic base is a useful way to understand how the structure of the economy has changed, and what forces have influenced its evolution.

Under the economic base concept, economic activities are loosely divided into two categories:

Basic activities, which respond to demand from outside the region, and bring income into the Bay Area through the export of goods and services. It is growth in basic activities that drives overall expansion of the economy.

Local-serving activities are those responding to demand from within the region. These activities expand in response to increases in population and income levels.

The distinction between basic and local-serving activities is not always clear-cut and sometimes involves qualitative judgements, but general findings about the Bay Area's economic base help provide an understanding of the dynamics of our region's economy.

The Bay Area has a growing and highly diverse economic base. Growth of the economic base is the driving force behind the region's overall economic expansion. The economic diversity of the Bay Area is important because it means the region's economy will be relatively less affected by cyclical fluctuations in the national economy or downturns in any given industry.

Components of the region's economic base have been defined in terms of economic sectors, or groupings of highly interrelated industries. Key sectors of the Bay Area's economic base have been identified based on importance in one or more of the following indicators: their current employment levels, recent employment growth, the value added of their products (total sales minus costs of materials), the volume of sales made outside the region, and the degree to which they interact with or serve other industries.

The Bay Area's economic base is comprised of a broad range of economic sectors. The most important and rapidly growing are:

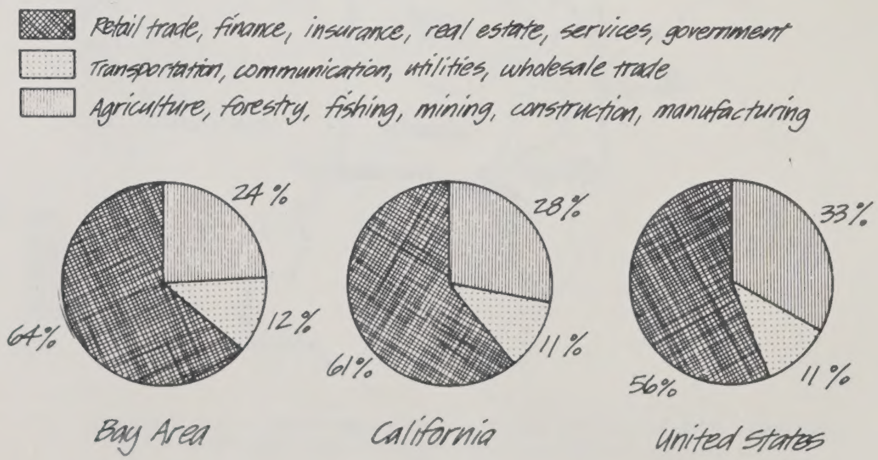
- ***High-technology manufacturing,*** including aerospace, computers, electronics and instruments.
- ***The office sector,*** characterized by concentrations of professional, managerial, clerical and sales workers in office buildings. (It does not include office workers in hospitals and schools.)
- ***Tourism,*** defined according to the market served — conventioneers, business travelers and vacationers. Major activities include hotels, motels, retail trade and local transportation.

Other key sectors are:

- ***Food processing,*** including fruits, vegetables, wine and brandy for export markets, as well as a number of products for regional markets, such as meat, dairy and bakery products.
- ***Long-distance transportation,*** including goods-moving activities by air, rail, highway and waterborne modes.
- ***Federal and state government,*** including federal offices serving the western U.S., state offices and universities, and large government enterprises such as the Mare Island Naval Shipyard. (Military personnel are not included.)

Generally, the Bay Area's economic base has shifted from goods-producing to service-oriented activities to a greater degree than has occurred nationally. As the region has grown the nature of its economy has changed , to some extent paralleling national trends, but also reflecting the Bay Area's advantages in particular economic sectors. The goods-producing activities (agriculture, construction and manufacturing) have become relatively less important components of the economy, while service-oriented activities (trade, finance, government, business, professional and other services) have grown in importance. The share of Bay Area employment in service-oriented activities expanded from 52 percent in 1960 to 64 percent in 1978. In contrast, service-oriented activities accounted for 56 percent of U.S. employment in 1978.

1978 Comparative Industrial Structures



Sources: California Employment Development Department, *Wage and Salary Employment by Industry.*

U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings.*

High-Technology Manufacturing

The Bay Area is one of the largest centers for high-technology manufacturing in the world. This sector is extremely important to the Bay Area economy, comprising 40 percent of manufacturing employment, contrasted with only 15 percent nationally. High-technology industries have consistently ranked high in value added, compared with other manufacturing industries. Moreover, a large proportion of high-technology products reaches export markets.

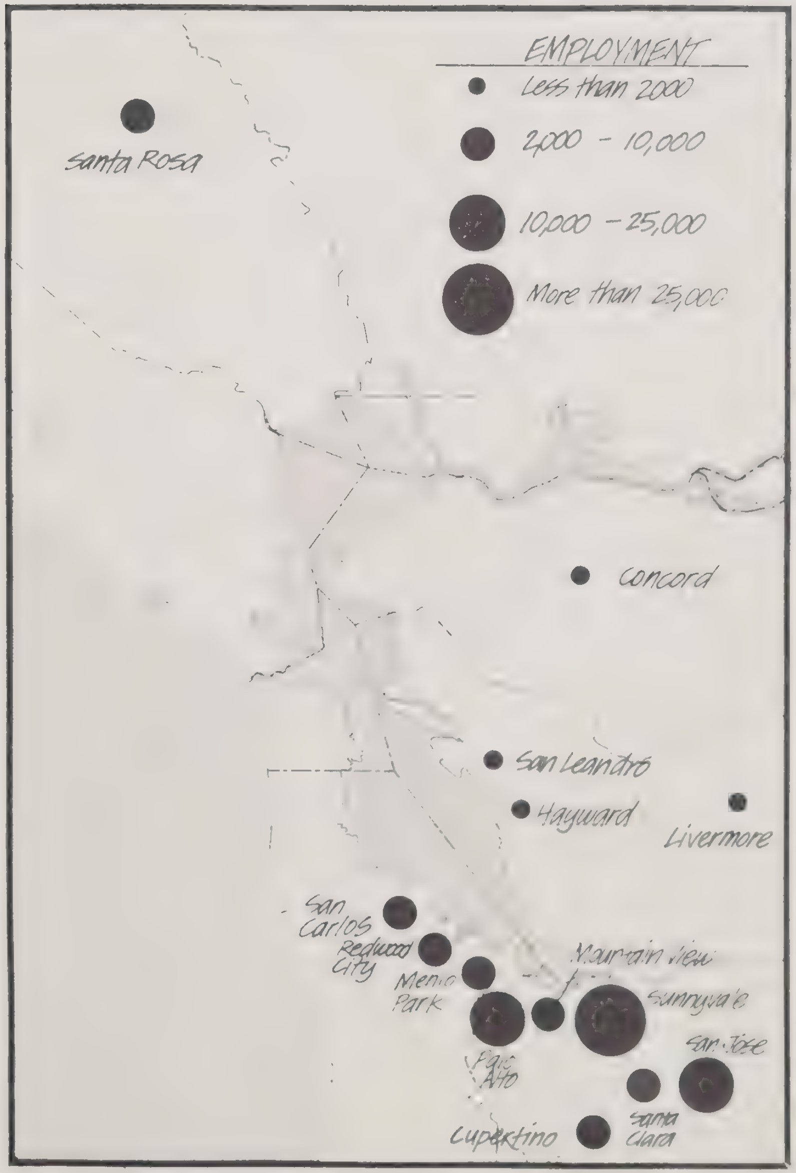
Between 1972 and 1977, Bay Area employment in high-technology manufacturing grew by 50,000, which is equivalent to one-fifth of all high-technology jobs created in the nation over that time period. In 1977 employment was about 160,000, with the largest volume of employment in electronic components. Bay Area employment in high-technology grew at an average annual rate of 8 percent; by contrast, the national yearly growth rate in high-technology was only 1.7 percent.

In terms of labor supply, Bay Area high-technology firms require a much higher proportion of professional and technical workers than the industry does nationally and also generate a large demand for assembly workers. Manufacturers have been having some difficulty recruiting these workers from the local labor market.

The bulk of high-technology manufacturing is centered in the south Bay, as reflected in its widely-used nickname — "Silicon Valley." In 1975, 79 percent of the region's high-technology employment was in Santa Clara Valley. Concentration of this sector in the south Bay is likely to continue, since locations in that area offer proximity to a specialized labor force, scientific research organizations, and existing firms that supply components needed for manufacturing.

Demand for high-technology products is expected to increase considerably. The Bay Area high-technology sector is a unique center of new product development and innovation and, thus, enjoys special advantages in competing for new markets. A recent survey by the Santa Clara County Manufacturing Group indicates the Bay Area employment in high-technology could expand by as many as 25,000 jobs over the next two years and by another 30,000 between 1982 and 1985. However, several potential constraints should be considered when evaluating these expansion plans — notably escalating housing costs and potential electricity shortages.

Major Bay Area High Technology Manufacturing Centers: 1975



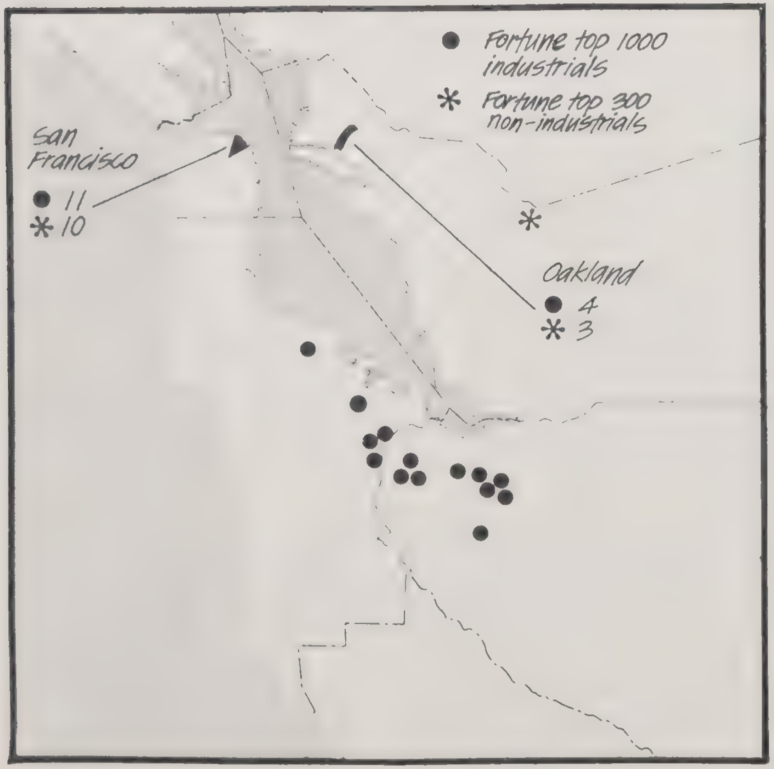
Source: ABAG *Projections* '79 Data Base

The Office Sector

Cutting across traditional categories of economic activity, the office sector is classified around occupational categories, focusing on those who occupy office buildings, and is concentrated in service-oriented rather than goods-producing activities. It shares with high-technology manufacturing a need for a large supply of workers with specialized skills. Economic activities with a high proportion of office employment (more than 50 percent) include finance, insurance, real estate, services and government.

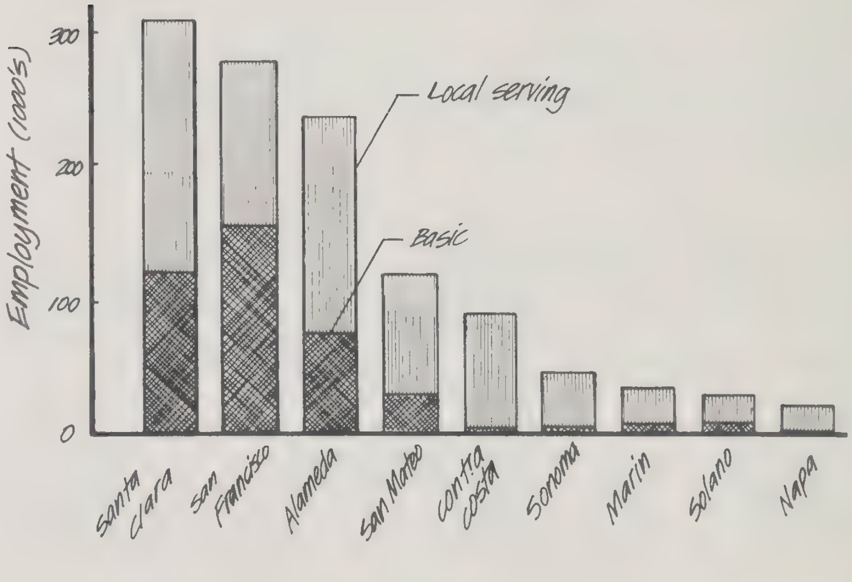
The office sector accounted for 60 percent of the region's total employment growth between 1970 and 1978, or almost 300,000 new jobs. By 1978, slightly over half of all Bay Area jobs were in office occupations.

Major Corporate Headquarters in the Bay Area: 1978



Source Fortune Magazine, (May, June, July, 1979)

Office Employees in Bay Area Counties by Basic and Local-Serving Components: 1978



Source: ABAG staff analysis, based on California Employment Development Department, *Annual Planning Information,* (Sacramento, 1979).

Of the more than 1.1 million Bay Area office workers in 1978, most were in local-serving activities, but about a third were employed in corporate headquarters, auxiliary operations and western regional headquarters, serving areas larger than the Bay region. These are among office-centered activities that contribute substantially to the region's economic base.

The Bay Area has become an important center for corporate headquarters; of companies listed in *Fortune Magazine* as the top 1000 industrial and top 300 non-industrial corporations in the U.S., 43 are headquartered within the region.

The bulk of this basic office activity is located in San Francisco and Santa Clara Counties, but downtown San Francisco's ability to accommodate greatly increased concentrations of office workers is being questioned. While it is evident that the Bay Area has a strong competitive advantage in attracting office activities, it is unclear where future growth will be concentrated.

Tourism

Tourism is defined according to the market served. Tourism activities serve visitors from outside the region — conventioneers, business travelers and vacationers — and thus, in economic terms, constitute exports of goods and services.

Tourist expenditures are focused in a fairly limited number of industries — hotels, motels, eating and drinking places, entertainment and recreation services and local transportation. But because both tourists and local residents generate demand in these industries, and because there are no comprehensive data on tourism, it is difficult to estimate the number of tourism-related jobs in the Bay Area.

One of the few available indicators is the number of visitors to San Francisco, which increased from 1.56 million in 1970 to 3.21 million in 1978, a very high annual growth rate of 9.4 percent. Over this period, annual expenditures by those visiting San Francisco increased from $234 million to $407 million (measuring in constant 1967 dollars).

It is estimated that about 35 percent of tourist expenditures are for hotel and motel rooms, with an additional 27 percent for restaurants. About 13 percent is spent in retail stores, with the remainder divided among local transportation, sightseeing, entertainment and automobile-related purchases.

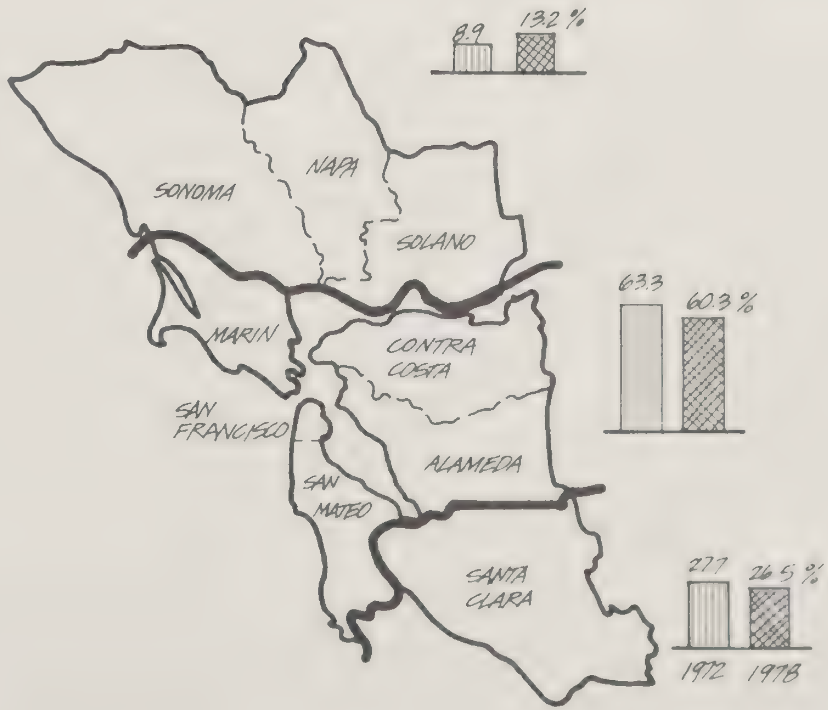
Tourism is likely to become an increasingly important economic sector in the Bay Area, as indicated by the new waterfront and Yerba Buena Center developments in San Francisco and the planned Hong Kong U.S.A. center in Oakland. The increasing popularity of winery tours and the full development of the Golden Gate National Recreational Area are examples of expanding tourist attractions in other parts of the Bay Area. However, gasoline supply problems and price increases could slow the growth of tourism in the Bay Area.

Food Processing

The processing of foods and beverages has historically been one of the Bay Area's most important manufacturing activities, and also one of the most diverse. It encompasses a wide range of products and manufacturing sites throughout the region. The food processing industry sold almost $5 billion worth of products in 1976, $1.6 billion of which was value-added.

Food processing employment represents a somewhat declining share of total regional employment, partly because new facilities have been located closer to Central Valley agricultural production centers. But food processing is still an important sector of the Bay Area economy and is the focal point of a very broad range of related supply, production, distribution and consumer activities (agricultural and food product suppliers, container manufacturing, wholesaling and retailing, restaurants).

The Geographic Distribution of Food Processing Employment in the Bay Area: 1972 and 1978



Source: California Employment Development Department, *Wage and Salary Employment by Industry*, (Sacramento, 1979)

In 1978, food processing employment stood at 49,100, virtually the same as the 1972 level of 48,300. There was a slight decline in food processing employment in central Bay Area counties, with stable levels in Santa Clara County. The north Bay counties have shown increasing levels of employment, with the highest growth rates in Solano and Napa counties.

Most activities serving regional markets — meat, dairy and bakery products — tend to locate in central Bay Area counties. The important export products — canned and preserved fruits and vegetables, wine and brandy — tend to locate nearer the sources of agricultural production, in the counties of Santa Clara, Solano, Napa and Sonoma. Wine and brandy production is the single food processing activity showing substantial growth in outputs although employment growth associated with this expansion has been relatively modest.

Long-Distance Transportation

Transportation by rail, truck, air and water is important to the Bay Area economy not only as an employment sector, but also as a vital support service moving both goods and people. Both port and rail facilities were important historical factors in development of the regional economy.

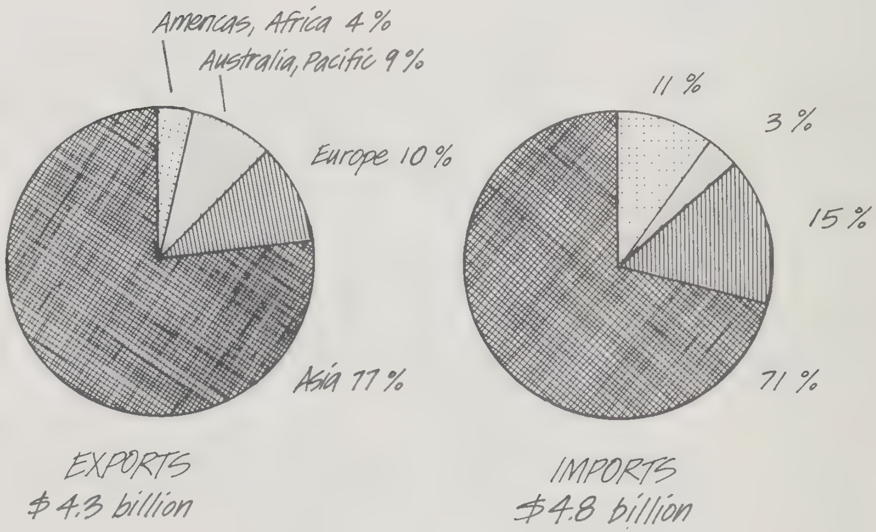
Today, these transportation facilities provide essential services to nearly all of the major economic complexes of the Bay Area. Shipments of manufactured products, international trade, and business and tourist travel all rely on long-distance transportation networks.

In recent years regional employment in long-distance transportation employment has been fairly constant at a level of about 70,000. Slight decreases in both railroad and waterborne transport employment have been offset by increases in trucking and airline employment.

The potential for significant increases in trade with the Orient, including China, points to the increasing importance of waterborne transport to the region's economy. International waterborne trade tonnage expanded by more than 75 percent between 1972 and 1977, in part due to containerization in the shipping industry, which has permitted increasing efficiencies and economies of scale. Trade to Asian countries accounts for 77 percent of exports and 71 percent of imports; Japan is our most important Asian trading partner. Europe accounts for about 10 percent of exports and 15 percent of imports. The remaining volume is divided among Australia, the South Pacific and relatively nearby countries in the Americas.

Bay Area International Trading Partners: 1978

(percentage of shipments, except petroleum, by dollar values for the San Francisco-Oakland Customs District)



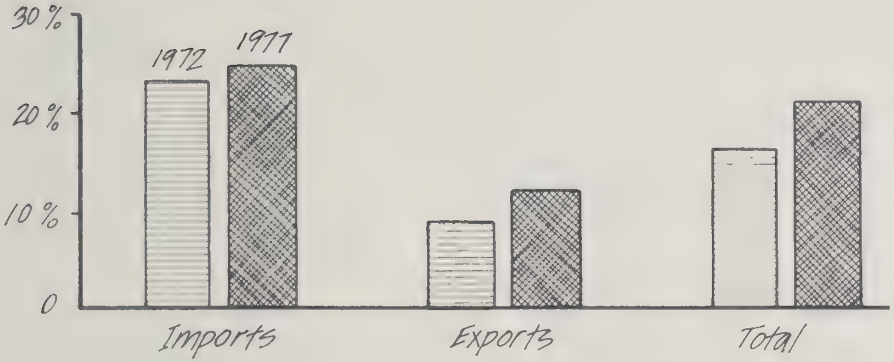
Source: Port of Oakland, *Foreign Trade, Oakland-San Francisco Customs District and U.S. West Coast, January-December 1978*, (Oakland, 1979).

The region's share of all West Coast waterborne cargo has been increasing from 17 percent of total tonnage in 1972 to over 21 percent in 1977. In that year Bay Area seaports handled 12 percent of West Coast export tonnage and over 24 percent of imports.

Total cargo handled by Bay Area ports in 1977 amounted to nearly 23 million tons. Richmond and Carquinez Strait ports accounted for most of this tonnage because they handled virtually all the petroleum coming into the region. When petroleum imports are excluded, Oakland is the region's most important port for general cargo, handling 55 percent of shipments in 1977, followed by San Francisco (21 percent), Richmond (12 percent), Carquinez Strait (9 percent) and Redwood City (3 percent). Oakland has grown fastest of all Bay Area ports in shipments of general cargo, increasing its share from 36 to 55 percent of the Bay Area total over the 1972-1977 period.

Bay Area Seaports: Share of U.S. West Coast International Shipments: 1972 and 1977

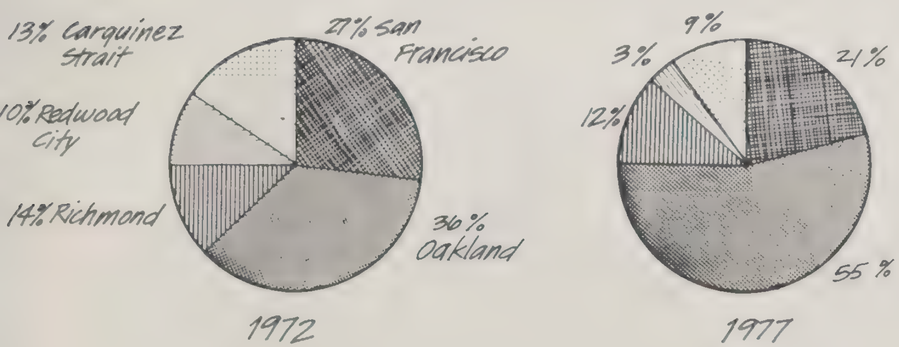
(percentage of shipments by weight)



Source: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States, Part 4*, (Vicksburg, Mississippi, 1973 and 1978).

Distribution of International Shipments among Bay Area Seaports: 1972 and 1977

(combined imports and exports, except petroleum, by weight)



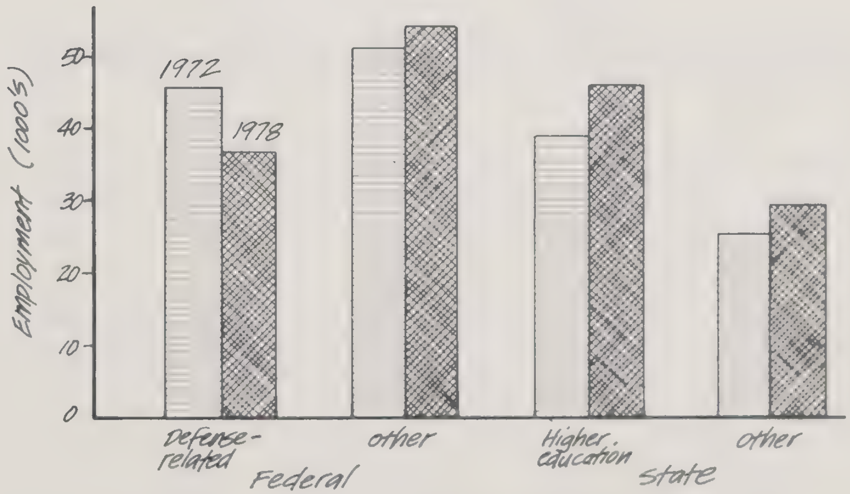
Source: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States, Part 4*, (Vicksburg, Mississippi, 1973 and 1978).

Federal and State Government

As the predominant western metropolis until well into this century, San Francisco became the site of most western regional offices of the federal government. San Francisco is still the most important western center for federal activities in human resources and national defense.

Most federal government activities and many state government functions in the Bay Area are financed with fees, revenues or tax dollars generated outside the area, and thus contribute substantially to the region's economic base.

Composition of Bay Area Federal and State Government Employment: 1972 and 1978



Source: California Employment Development Department, Employment Data and Research Division

Over the 1972-1978 period federal and state government in the Bay Area was virtually unchanged at about 165,000 (about 90,000 federal and 75,000 state). However, this stable employment level masks some shifts of considerable magnitude. Civilian employment in defense-related federal government declined substantially, from 45,000 to less than 35,000, most probably due to the winding down of the Vietnam War. In other federal activities employment increased from 52,500 to 56,500. Within state government, higher education increased in employment from 39,300 to 46,300 and other state functions from 26,200 to 29,000.

ECONOMIC RESOURCES

There are a variety of factors that have influenced evolution of the Bay Area's economy, for example, its location, natural port, geographic diversity, climate, and quality of life.

The following are specific findings about two key factors — labor and land — that have supported growth of the region's economy and will be significant in shaping the level and character of its future expansion.

Other factors will also significantly influence future growth, notably energy and capital, but available data are insufficient to analyze the Bay Area's relative position concerning these resources.

Characteristics of the Labor Force

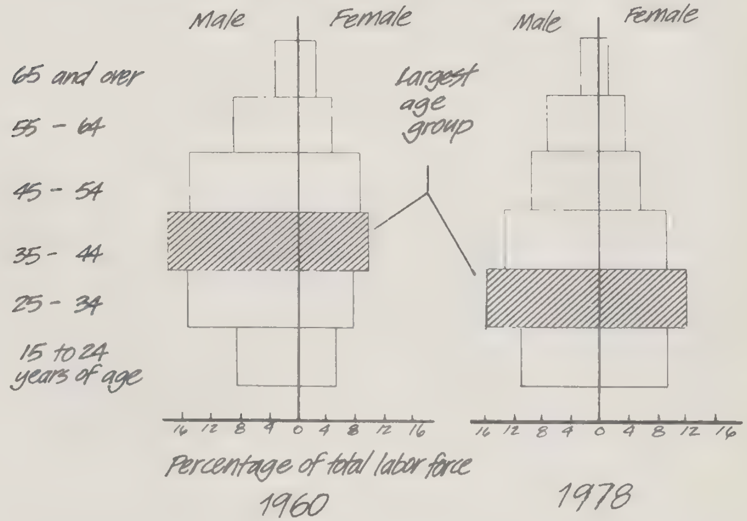
In recent years there have been significant changes in the Bay Area's labor force, in terms of demographic composition, size and skills. Generally, these changes parallel national trends, but some have been more pronounced in the Bay Area.

The Bay Area labor force is growing faster than its population. The Bay Area's labor force increased at a 2 percent annual rate from 1970 to 1978, compared with a 1 percent annual increase in population. The primary reasons for this faster growth in labor force, which are similar to national trends, appear to be entry of the 1950s "baby boom" population into the work force and increasing participation of women.

Many born during the baby boom years have entered the labor force, and are in the high work-participation years. This influx has lowered the median age of the labor force from 40 in 1960 to 37 in 1978, and has shifted the age and sex structure of the labor force. In 1960 the largest proportion of workers, for both males and females, was in the 35 to 44 age group, while in 1978 the 25 to 34 age group was the largest.

In 1978, 55 percent of all Bay Area women over the age of 16 were in the labor force, compared with about 37 percent in 1960. Nationally, participation of women increased from 38 percent to 48 percent over the same period. This higher participation by women in the Bay Area is probably due to our industrial structure; the high technology, service, and office sectors all employ a high proportion of women.

Bay Area Labor Force Composition by Age and Sex: 1960 and 1978



Sources: U.S. Department of Commerce, Bureau of the Census, *Census of Population: 1960,* Volume 1, Part 6, (Washington, 1963).

California Employment Development Department, *Annual Planning Information,* (Sacramento, 1979).

White-collar occupations are growing in importance. The proportion of white-collar occupations — professional, technical, managerial, and sales — is increasing in the Bay Area, as it is nationally. In 1978, 62 percent of the work force were white-collar, compared with 53 percent in 1960.

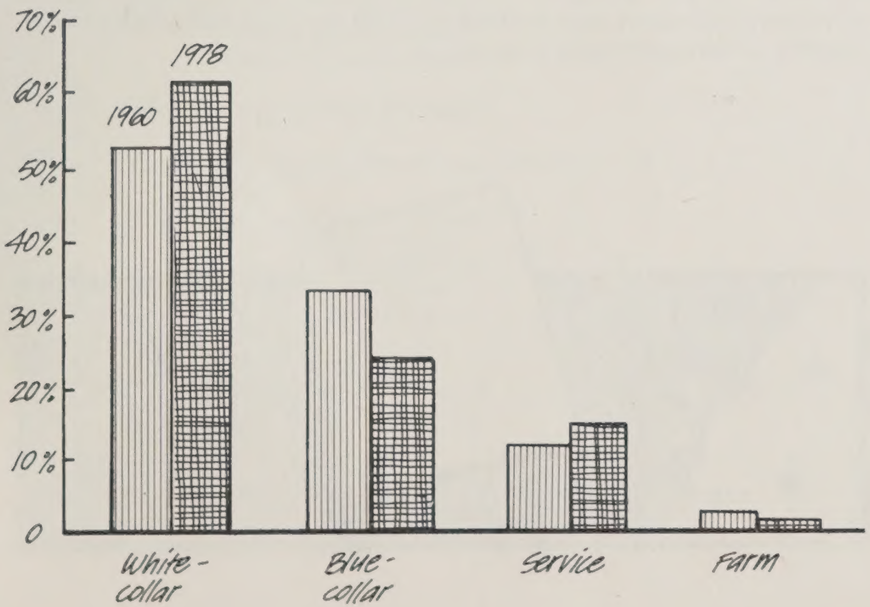
The region's occupational trends are closely linked to the shifts in its economic composition. The labor in various skill categories has responded both to the changing needs of existing industries and to the requirements of expanding economic sectors.

Between 1960 and 1978, the professional and technical occupations together emerged as the region's largest single employment category, accompanying the rapid growth of high technology manufacturing and services. This occupational category now represents 23 percent of all Bay Area employment, up from 15 percent in 1960. Because high technology manufacturing, the office sector and other service-oriented activities are rapidly growing and employ a large proportion of highly skilled workers, these trends are likely to continue.

The productivity of Bay Area manufacturing is high, relative to California and the U.S. Wage rates alone do not provide an accurate estimate of labor costs; it is also necessary to take into account the productivity of employees. The indicator used to measure productivity is value added in manufacturing per employee.

A comparison of 1976 figures on manufacturing payroll costs and productivity for the Bay Area, California, and the nation show payroll costs to be relatively higher in the Bay Area. However, this differential appears to be offset by the relatively higher value added per employee. While annual payroll costs per employee were about $2,500 higher in the Bay Area than for the nation as a whole, value added was almost $4,200 higher.

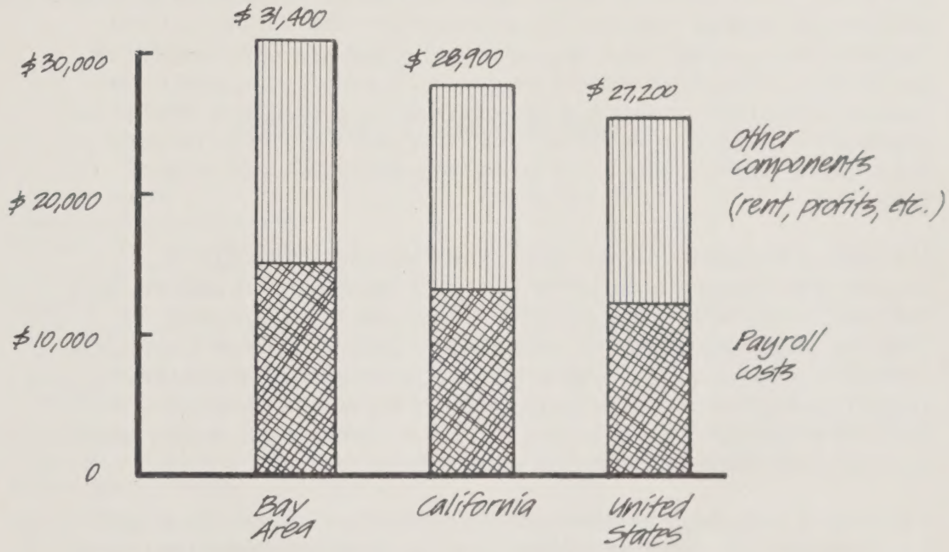
Bay Area Employment Composition by Occupational Categories: 1960 and 1978



Sources: U.S. Department of Commerce, Bureau of the Census, *Census of Population: 1960,* Volume 1, Part 6, (Washington, 1963).

California Employment Development Department, *Annual Planning Information,* (Sacramento, 1979).

Value Added in Manufacturing per Employee: Bay Area, California and United States: 1976



Source: U.S. Department of Commerce, Bureau of the Census, *1976 Annual Survey of Manufactures,* (Washington, 1977).

Structural unemployment remains a major problem while jobs go unfilled. The greatest unemployment problem in the Bay Area, as in the nation, is structural unemployment — those needing jobs do not have skills matching employer's requirements. Many employers are finding it necessary to recruit outside the region to meet their skill requirements. This has been most noticeable in high technology industries, but the office industry also requires increasing numbers of skilled workers for white-collar occupations.

While unemployment has ranged from 6 to 9 percent for the total labor force over the past several years, unemployment rates among minorities and youth tend to be higher — sometimes as much as 15 to 25 percent or more.

Land Development Patterns

The supply and location of developable land is significant to the region's economy for several reasons. The supply of sites for commercial and industrial activities can be a key ingredient in public and private-sector decisions concerning economic expansion. But this is only part of the picture. Of equal importance is the supply of residential land needed to house an expanding work force. Location of new housing is particularly important; residential sites must be within a reasonable commute of work sites.

It is difficult to assess the availability and capacity of the region's developable land in precise terms. First of all, local land use policies have not been surveyed recently. Second, Proposition 13, the property tax limitation initiative passed last year, and the Gann government spending limitation initiative that will appear on the November 1979 ballot, have altered local governments' view of the fiscal impacts of development. Both these changing fiscal factors and public opinion may encourage a reversal of past trends toward lower densities.

However, it is possible to make some general observations about land use trends over the past twenty years that could have important economic implications.

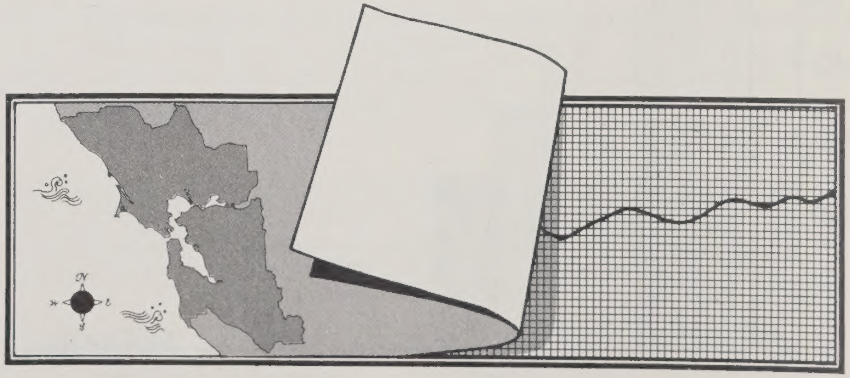
The supply of industrial land appears adequate. According to a 1975 survey of local land use plans and policies conducted by ABAG in cooperation with local agencies, approximately 62,000 acres within the region are currently vacant and designated for industrial development. All existing industrial development in the Bay Area occupies about 55,200 acres. Thus, in broad terms it appears reasonable to say that the region's reserve of industrial land is ample, at least for the foreseeable future. However, some industries may still have difficulty finding appropriate sites in the Bay Area, particularly those requiring locations with special characteristics, or who may not be able to meet environmental requirements connected with available sites.

Changing fiscal policies could also affect local decisions on industrial and commercial development. In the past, the apparent tax base advantages of industrial activity encouraged local governments to overzone this category. Proposition 13 and the Gann initiative have increased uncertainty about local governments' ability to provide public services required to support industrial and commercial development.

There appears to be an increasing job/housing imbalance. Many new jobs are concentrated in existing urban centers while most new housing is being built on the periphery of urbanized areas. The 1975 ABAG survey found that new residential development was being planned at increasingly lower densities. In 1975, the regional average density of existing housing was slightly over 8 units per acre, while local plans and policies called for new housing development averaging between 3 and 4 units per acre. The ABAG survey also found that the amount of planned development within already urbanized areas (known as "infill" development) is relatively small compared to planned growth in suburban and rural areas.

These trends suggest an increasing job/housing imbalance, resulting in continued increases in the volume and length of home-to-work trips. Shortages of housing with reasonable access to employment centers are already being experienced in some areas of the region, and have contributed to the Bay Area's relatively higher housing costs.

Problems of housing supply, escalating costs, and job/housing imbalance are already having some impact on economic growth. Some employers are finding them a barrrier to recruitment and an obstacle to plans for expansions within the region. This has been particularly true of high-technology manufacturers located in the Santa Clara Valley, but may become a more generalized trend.



BAY AREA ECONOMIC PROFILE

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